

Supplementary Material to “Evaluating Journal Impact Factor: a systematic survey of the pros and cons, and overview of alternative measures”

Additional file 3. Percentage of sample reporting specific advantages and disadvantages of JIF.

Table 1. Percentage of sample reporting specific advantages of JIF (n = 84).

| Advantages | Number of publications (count, %) |
|---|-----------------------------------|
| Reproducible | 4 (4.8%) |
| Tangible measure | 4 (4.8%) |
| Allows within-field comparison | 3 (3.6%) |
| Effective quality measure | 2 (2.4%) |
| Encourages scientists to produce higher quality research | 2 (2.4%) |
| Indicates publication citability | 2, (2.4%) |
| Can be used in individual research assessment for academic promotions and recruitment | 1 (1.2%) |
| Simplistic measure | 1 (1.2%) |
| Globally recognized | 1 (1.2%) |

Table 2. Percentage of sample reporting specific disadvantages of JIF (n = 84).

| Number | Disadvantages | Number of publications (count, %) |
|--------|---|-----------------------------------|
| 1 | Does not account for skewed citation distribution | 56 (66.7%) |
| 2 | JIF is not a valid measure of quality for individual publications and/or authors | 54 (64.3%) |
| 3 | Measured window (2 years) fails to account for differing citation rates among publication types | 40 (47.6%) |
| 4 | Unclear definition of what is considered a “citable” item by the ISI | 35 (41.7%) |
| 5 | Encourages self-citation | 33 (39.3%) |
| 6 | Measured window (2 years) fails to account for variance in publication processes between academic fields | 30 (35.7%) |
| 7 | Does not account for different citation pool sizes among general and specific journals | 29 (34.5%) |
| 8 | Discrepancy in definitions for the numerator and denominator entice inflation practices | 28 (33.3%) |
| 9 | Limitations as an accurate predictor of journal quality | 27 (32.1%) |
| 10 | Limited validity for cross-discipline comparison | 27 (32.1%) |
| 11 | Database used in the calculation of JIF (Science Citation Index) do not include citations of journals outside of its database | 14 (16.7%) |
| 12 | Does not capture real impact of the journal | 14 (16.7%) |
| 13 | Shows bias towards English journals | 12 (14.3%) |
| 14 | Year-to-year variability of 10-20% | 6 (7.1%) |
| 15 | Encourages multiple publication (salami-publishing) | 4 (4.8%) |
| 16 | Measured window (2 years) promotes holding of research in attempts to maximize citations recorded | 2 (2.4%) |
| 17 | Only statistically significant to 2 decimal places | 2 (2.4%) |
| 18 | Too simple | 1 (1.2%) |